IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Kensuke KOMATSU et al.

Group Art Unit: 1743

Appl. No. : 10/767,334

Examiner · Arlen SODERQUIST

Filed : January 30, 2004

Confirmation No. : 5231

For : FLNORESCENT PROBE FOR ZINC

SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
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Sir:

Further to the Information Disclosure Statements filed November 5, 2004, and November 22, 2004, and in accordance with the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98, Applicants hereby bring the following information to the attention of the Examiner:

- (1) U.S. Pat. No. 6,903,226;
- (2) U.S. Pat. App. Publication No. 2003/0157727;
- (3) U.S. Pat. App. Publication No. 2003/0153027;
- (4) U.S. Pat. App. Publication No. 2005/0037332:
- (5) U.S. Pat. App. Publication No. 2005/0064308;
- (6) U.S. Pat. App. Publication No. 2005/0182253;
- (7) U.S. Pat. App. Publication No. 2006/0030054:

- (8) U.S. Application No. 10/531,664, which is a National Stage Application of PCT/JP2003/013179, and which published as WO 2004/040296:
- U.S. Application No. 10/570,355, which is a National Stage Application of PCT/JP2004/013185, and which published as WO 2005/024049;
- (10) U.S. Pat. App. No. 11/433,691, which is a continuation of 10/9/4,380 which published as U.S. Pat. App. Publication No. 2005/09/64308, which is a divisional of 10/203,628, and now U.S. Pat. No. 6,993,226.
- (11) U.S. Pat. App. No. 11/382,424, which is a continuation of U.S. Application No. 10/204,417 which published as U.S. Pat. App. Publication No. 2003/0153027, and which U.S. Application No. 10/204,417 is a National Stage Application of PCT/NP2001/01504, and which published as WO 01/63265:
- (12) U.S. Pat. No. 6,756,231;
- (13) U.S. Pat. No. 6,469,051;
- (14) U.S. Pat. No. 6,441,187;
- (15) U.S. Pat. App. Publication No. 2005/0123478;
- (16) U.S. Pat. App. Publication No. 2005/0130314;
- (17) U.S. Pat, App. Publication No. 2004/0147035;
- (18) U.S. Fat. App. Publication No. 2004/0043498;
- (19) U.S. Patent No. 6,013,802;
- (20) U.S. Patent No. 6,833,386;
- (21) U.S. Patent No. 6,569,892;
- (22) U.S. Patent No. 5,874,590.

- (23) U.S. Patent No. 5,648,270;
 - (24) U.S. Patent No. 6,469,051;
 - (25) U.S. Patent No. 6,525,088;
 - (26) U.S. Patent No. 6,569,892;
 - (27) U.S. Patent No. 6,201,134
 - (28) U.S. Petent No. 5,874,590;
 - (29) U.S. Patent No. 5,208,148;
 - (30) Reyes, J.G., et al., Biol. Res., 27, pp. 49-56, 1994
 - (31) Tsuda, M., et al., Neurosci., 17, pp. 6678-668, 1997;
 - (32) Koike, T., et al., J. Am. Chem. Soc., 118, pp. 12696-12703, 1996;
 - (33) Saibou Kougaku (Cell Technology), 17, pp. 584-595, 1998;
 - (34) Tanpakushitsu.Kakusan.Kouse (Protein, Nucleic Acid and Enzyme), extra number, 42, pp. 171-176, 1997;
 - (35) Tetsuji Kametani, Nankodo Co., Ltd., pp. 214-215, 1997;
 - (36) Handbook of Fluorescent Probes and Research Chemicals, 6th Edition by Richard P. Haugland, pp. 503 and 531-540;
 - (37) Protective Groups in Organic Synthesis, T. W. Greene, John Wiley & Sons, Inc. pp. v-xxi and 369-405;
 - (38) JP 2000-239272 A (T. NAGANO et al.), 5 September 2000, accompanied by an English language abstract thereof (provided by Patent Abstracts of
 - (39) Angew. Chem., Int. Ed. (1999), 38(21), pp. 3209-3212;
 - (40) Anal. Chem. (1998), 70(13), pp. 2446-2453;

Japan).

- (41) Bioorganic & Medicinal Chemistry, Vol.4, No.6, pp. 901-916, (1996);
- (42) Bioorg. Khim. (1995), 21(10), pp. 795-801;
- (43) Sci. China, Ser. B: Chem. (1998), 41(5), pp. 549-555;
- (44) J. Am. Chem. Soc. (1996), 118, pp. 6514-6515.
- (45) Hitano T. et al., "Highly Zinc-Selective Fluorescent Sensof Molecules Suitable for Biological Applications", J. Am. Chem. Soc., Vol. 122, No. 49, 13 December 2000, pp. 12399-12400;
- (46) Walkup G. K. et al., "A New Cell-Permeable Fluorescent Probe for Zn²⁺", J. Am. Chem. Soo. Vol. 122, No. 23, 14 June 2000, pp. 5644-5645.
- (47) WO 00/00819;
- (48) WO 89/09408;
- (49) WO 96/42016;
- (50) WO 98/15830;
- (51) WO 99/15896;
- (52) BAMBOT, S.B. et al., "Potential Applications of Lifetime-Based, Phase-Modulation Fluorimetry in Bioprocess and Chinical Monitoring", Trends in Biotechnology, Vol. 13, No. 3, March 1995, pages 106-115, XP 004207125;
- (53) SIPIOR, J. et al., "Lifetime-Based Optical Sensing of pH Using Resonance Energy Transfer in Sol-Gel Films", Sensors and Actuators B, Vol. 22, No. 3. December 1994, pages 181-188, XP004011062;
 - 54) SELVIN, P.R. et al., "Luminescence Energy Transfer Using a Tendium Chelate: Improvements on Fluorescence Energy Transfer", Proceedings.

- of the National Academy of Science of USA, National Academy of Science, Washington, DC, US, Vol. 91, October 1994, Pages 10024/10028;
- (55) U.S. Patent No. 5,656,433, and family members U.S. Patent Nos. 5.822,821, and 5,639,615; and
- (56) Yuan, V. et al., "Functionalization of Fluorescent Lanthanide Complexes and Their Applications to Biotechnology", Bunseld Kagaku Japan Analyst; Vol. 48, No. 12, pages 1077-1083 (1999) XP002932633.
- (57) JP 9-101262 A GOLIGHT INC), 15 April 1997, accompanied by an English language abstract thereof;
- (58) U.S. Patent No. 4,891,075
- (59) U.S. Patent No. 4,968,631;
- (60) U.S. Patent No. 5,340,716;
- (61) U.S. Patent No. 5,800,99%;
- (62) U.S. Patent No. 5,863,727;
- (63) JP 5-180773 A, accompanied by an English language abstract thereof;
- (64) JP 10-88124 A, accompanied by an English language abstract thereof;
- (65) JP 2000-111480 A, accompanied by an English language abstract thereof;
- (66) Rogers, M. V., Drug Discovery Today, Vol. 2, pp. 156-160, 1997;
 - (67) Selvin, P. R., et al., J. Am. Chem. Soc., Vol. 117, pp. 8132-8188, 1995;
- (68) Stryer, L., Ann. Rev. Biochem., Vol. 47, pp. 819-846, 1978;
 - (69) Hemmilä, I., et al., Drug Discovery Today, Vol. 2, pp. 373-381, 1997;

- (70) New Apoptosis Experimental Protocol, 2nd ed., Yodosha, pp. 201-204, 1999;
 - (\$1) Selvin, P. R., et al., J. Am. Chem. Soc., Vol. 116, pp. 6029-6030, 1994
 - (72) J. BURCH, "The Inhibition of Horse-Liver Esterase by Rhodamine B," Biochemical Journal, Vol. 59, pp. 97-110 (1955);
 - (73) D.D. NHOMAS et al., "Flourescence energy transfer in the rapid-diffusion limit," Proseedings of the National Academy of Sciences of the United States of America, Vol. 75, No. 12, pp. 5746-5750 (1978);
 - (74) S.M. YEH et al., "Characterization of Transferin Metal-Binding Sites by Diffusion-Enhanced Energy Transfer," Biochemistry, 19, pp. 5057-5062 (1980);
 - (75) R.A. EDWARDS et al., "Spectroscopic Studies of Cibacron Blue and Congo Red Bound to Dehydrogenases and Kinases. Evaluation of Dyes as Probes of the Dinucleotide Fold," Biochemistry, Vol. 18, No. 23, pp. 5197-5204 (1979);
 - (76) C.F. MEARES et al., "Diffusion-Enhanced Energy Transfer Shows Accessibility of Ribonucleic Acid Polymerase Inhibitor Binding Sites," Biochemistry, 20, pp. 610-617 (1981);
- (77) T.G. WENSEL et al., "Electrostatic Properties of Myoglobin Probed by Diffusion-Enhanced Energy Transfer," Biochemistry, 22, pp. 6247-6254 (1983);

- (78) M.M. FEDERICI et al., "Interaction of Cibacron Blue F₃GA with Glutamine Synthetase: Use of the Dye as a Conformational Probe. 1. Studies Using Unfractionated Dye Samples," Biochemistry, 24, pp. 647-660 (1985);
 - (79) T.G. WENSEL et al., "Diffusion-Enhanced Lanthanide Energy fransfer Study of DNA-Bound Cobalt(III) Bleomycins: Comparisons of Accessibility and Electrostatic Potential with DNA Complexes of Ethiolium and Acridine Orange," Biochemistry, 24, pp. 3060-3069 (1985);
 - (80) B.S. ISAACS et al., "A Domain of Membrane-Bound Coagulation Factor Va Is Located Far from the Phospholipid Surface. A Fluorescence Energy Transfer Measurement," Biochemistry, 25, pp. 4958-5969 (1986);
 - (81) T.G. WENSEL et al., "Study of Biological Macromolecules by Diffusion-Enhanced Lanthanide Energy Transfer," Journal of the Less-Common Metals, 149, pp. 143-160 (1989);
 - (82) P.R. SELVIN et al., "Luminescence Resonance Energy Transfer," Journal of the American Chemical Society, 116, pp. 6029-6030 (1994);
 - (83) T. YAMAMOTO et al., "Determination of Electrostatic Potential Around Specific Locations on the Surface of Actin by Diffusion-enhanced Fluorescence Resonance Energy Transfer," Journal of Molecular Biology, 241, pp. 714-731 (1994);
- (84) S.C.J. MESKERS et al., "Analysis of Delayed Luminescence from Some Quenchers of Tb(DPA)₃³⁻ Emission: Proof for an Energy Transfer Quenching Mechanism," Journal of Alloys and Compounds, 250, pp. 332-335 (1997);

- (85) D.D. ROOT, "In situ Molecular Association of Dystrophin with Actin Revealed by Sensitized Emission Immuno-Resonance Energy Transfer Proceedings of the National Academy of Sciences of the United States of America, 94, pp. 5685-5690 (1997);
- (86) C. MUCIGNAT-CARETTA et al., "Building of Two Fluorescent cAMP Analogues to Type I and II Regulatory Subunits of cAMP-Dependent Protein Kinases," Biochimica et Biophysica Acta, 1357, pp. 81-90 (1997).
- (87) Y.-W. PARK at al., "Homogeneous Proximity Tyrosine Kinase Assays:

 Scintillation Proximity Assay versus Homogeneous Time-resolved
 Fluorescence," Analytical Biochemistry, 209, pp. 94-104 (1999):
- (88) K. BLOMBERG et al., "Terbium and Rhodamine as Labels in a Homogeneous Time-resolved Fluorometric Energy Transfer Assay of the β Subunit of Human Chofionic Gonadotropin in Serum," Clinical Chemistry, 45, 855-861 (1999);
- (89) L.L. PEARCE et al., Role of Metallothionein in Nitric Oxide Signaling as Revealed by a Green Fluorescent Fusion Protein," Proceedings of the National Academy of Sciences of the United States of America, 97, pp. 477-482 (2000);
- (90) M. KØRESAWA et al., "Development of a Time-Resolved Fluorometric Detection System Using Diffusion-Enhanced Energy Transfer," Analytical Chemistry, 72, pp. 4904-4907 (2000).
- (91) U.S. Patent No. 5.037.615;
- (92) U.S. Patent No. 5,246,867;

- (93) U.S. Patent No. 5,622,821;
 - (94) U.S. Patent No. 6,753,156;
 - (95) U.S. Patent No. 6,936,687
 - (96) U.S. Patent No. 6,972,182
- (97) U.S. Patent Application Publication No. 2002/0177120;
- (98) U.S. Patent No. 5,623,080;
- (99) U.S. Patent No. 6,525,088;
- (100) EP 0515133 AQ:
- (101) JP 60-54381 A, accompanied by an English language abstract thereof;
- (102) T. NAGANO et al., **Specific Detection Method and Useful Generating System of Singlet Oxygen, Free Radicals in Clinical Medicine, Vol. 7, pp. 35-41 (1993);
- (103) I. SAITO et al., "Methyl Substituted Poly(vinylnaphthalene) as a Reversible Singlet Oxygen Carrier," J. Am. Chem. Soc., Vol. 107, pp.
 - 6329-6334, 1985;
- (104) T. W. Greene et al., "Protective Groups in Organic Synthesis," John Wiley & Sons, Inc., pp. v-xxi and 369-405 (1981);
- (105) J. KABATĆ et al., "Free Radical Polymerization Initiated via Photoinduced Interpolecular Electron Transfer Process: Kinetic Study 3¹," Polymer 49(3), pp. 735-745 (1999);
- (106) K. SETSUKINAI et al., "Fluorescence Switching by O-dearylation of 7aryloxycoumarins. Development of Novel Flourescence Probes to Detect

- Reactive Oxygen," J. Chem. Soc., Perkin Trans. 2, 12, pp. 2453-2457, (2000);
- (NO7) J.W. FIRTH et al., "Some Phenoxy-2H-benzo[b]pyrans," J. Cylem. Research (S), Vol. 2000, No. 7, pp. 308-308 (July 2000);
- (108) ANDEREGG et al., Helvetica Chimica Acta, Vo.. 50, pp. 2330-2333 (1967).
- (109) T. HIRANO et al., "Highly Zinc-Selective Fluorescent Sensor Molecules Suitable for Biological Applications," Journal of the American Chemical Society, Vol. 122, No. 49, pp. 12399-12400 (2000);
- (110) R.P. HAUGLAND, "Handbook of Fluorescent probes and Research Products," 9th Edition Supplement, Chapter 20, pp. 805-817 (2002);
- (111) G.K. WALKUP et al., "A New Cell Permeable Fluorescent Probe for Zn²⁺,"

 Journal of the American Chemical Society, Vol. 122, No. 23, pp. 56445645 (2000):
- (112) J. KAWAKAMI et al., "Ab initio Molecular Orbital Study of Emission Mechanism of 2.6 Bis (quinolinecarboxy) methylpyridine as Fluorescent Chemosensors for Zinc and Cadmium Ions," Journal of Computer Chemistry, Japan, Vol. 2, No. 2, pp. 57-62 (2003);
- (113) C.J. FREDERICKSON et al., "A quinoline fluorescence method for visualizing and assaying the histochemically reactive zinc (boulon zinc) in the brain," Journal of Neuroscience Methods, Vol. 20, pp 91-103 (1987);
 - D. ZALEWSKI et al., "Correlation of apoptosis with change in intracellular labile Zn(II) using Zinquin [(2-methyl-8-p-toluenesulphonamido-6-

- quinolyloxy)acetic acid], a new specific fluorescent probe for Zn(II),"
 Biochemical Journal, Vol. 296, Part 2, pp. 403-408 (1993);
- 115) JP 10-226688, accompanied by an English language abstract and family member U.S. Patent No. 5,874,590;
- (116) L. LINDQVIST et al., "Radiationless Transitions in Xanthere Dyes", J. Chem. Phys., Vol. 44, pp. 1711-1712 (1966);
- (117) WO 99/51586, and family member U.S. Patent No. 6,525,088 B1;
- (118) JP 2000-2392 2, accompanied by an English language abstract;
- (119) Richard P. HAUGLAND, Handbook of Fluorescent Probes and Research Chemicals, Sixth Editton, Chapters 22 - 24, pp. 503-584 (1996);
- (120) Theodora W. Greene, Protective Groups in Organic Synthesis, Chapter 7, pp. 218-287 (1981);
- (121) JP 6-207112 A, accompanied by an English language abstract and family members EP 0 582 836 A1, and U.S. Patent Nos. 5,380,880, 5,302,731, and 5.393,514; and
- (122) JP 08-271430, accompanied by an English language abstract.
- (123) EP 0 314 480 A, and family member U.S. Patent No. 5,049,673;
- (124) Rajendra Nath SEN et al., "The Condensation of Primary Alcohols with Resolctinol and Other Hydroxy Aromatic Compounds", J. Am. Chem. Soc., vol. 47, pp. 1079-1091 (1925), XP002332482;
- (128) WO 01/62755, and family members U.S. Patent Application Publication Nos. 2003/162298 A1 and 2005/064308 A1;

- (126) EP 1 260 510 A, and family members U.S. Patent Application Publication
 - Nos. 2003/162298 A1 and 2005/064308 A1;
- (127) U.S. Patent No. 5,874,590;
- (128) JP 10-226688 A, and family member U.S. Patent No. 5,874,590;
- (129) EP 1 069 121 A, and family member U.S. Patent No. 6,525,088 B1.
- (130) U.S. Patent No. 6,403,625;
- (131) R. KURDUKER et al., "Search for Physiologically Active Compounds", Proc. Indian. Acad. Sci. Sect. A., Vol. 57, pp. 280-287 (1963), which is cited on page 18 of the specification:
- (132) A. MINTA et al., "Fluorescent Indicators for Cytosolic Calcium Based on Rhodamine and Fluorescen Chromophores", J. Biol. Chem., Vol. 264, No. 14, pp. 8171-8178 (1989), which is cited on page 18 of the specification; and
- (133) P.K. Grover et al., "Xanthones. Part IV. A New Synthesis of Hydroxyxanthones and Hydroxybenzophenones," J. Chem. Sci. (London), pp. 3982-3985 (1955).
- (134) WO 01/64664/A1, accompanied by family member EP 1 260 508 A1;
- (135) JP 06-211631, accompanied by an English language abstract and family member U.S. Patent No.5,451,343;
- (136) William A. PRYOR et al., "A Practical Method for Preparing Reroxynitrite Solutions of Low Ionic Strength and Free of Hydrogen Peroxida" Free Radical Biology & Medicine", Vol. 18, No. 1, pp. 75-83 (1995);

(137) Stephen L. HEMPEL et al., "Dihydrofluorescein Diacetate is Superior for Detecting Intracellular Oxidants: Comparison with 2',7'. Dichlorodihydrofluorescein Diacetate, 5(and 6)-Carboxy-2',7'-Dichlorodihydrofluorescein Diacetate, and Dihydrorhodamie 125," Free Radical Biology & Medicine, Vol. 27, Nos. 1/2, pp. 146-159 (1999); and

(138) Joseph A. HRABIE et al., "New Nitric Oxide-Releasing Zwitterions Derived from Polyamines," J. Org. Chem. Vol. 58, pp. 1472-14/6 (1993).

In accordance with 3 C.F.R 1.98, a copies of the U.S. Patents and U.S. Patent Application Publications are not enclosed herewith. However, if copies are needed, the Examiner is respectfully requested to contact the under

Copies of the above-noted documents, with the exception of U.S. patents and U.S. Patent Application Publications, are enclosed together with a duly completed Form PTO-1449. The Examiner is accordingly requested to consider each of these documents, and to make them of record in this application by initialing in the appropriate spaces on the Form-1449. Applicants respectfully request that the Examiner include a copy of the initialed Form PTO-1449 with the next communication from the U.S. Patent and Trademark Office.

Applicants note that while this Second Supplemental Information Disclosure Statement is being filed more than three months from the filing date, Applicants have not received an action on the merits from the U.S. Patent and Trademark Office.

Accordingly, consideration of the enclosed document is required under 37 C.F.R. 1.97(b)(3).

P24867.A08 Application No. 10/767,334

However, if an action on the merits has been mailed prior to the filing date of this Supplemental Information Disclosure Statement, Applicants hereby authorize the chargins of any required fees necessary for consideration of the documents cited herein to Deposit Account No. 19-0089.

Any comments or questions concerning this application can be directed to the undersigned at the telephone number given below.

Respectfully Submitted/ Kepsuke KOMA/TSU et al.

Bruce H. Bernstein Reg. No. 29,027

Stephen M. Roylance Reg. No. 31.296

June 2, 2006 GREENBLUM & BERNSTEIN, P.L.C. 1950 Roland Clarke Place Reston, VA 20191 (703) 716-1191

Sheet 1 of 8

FORM PTO-1449

Department of Commerce Patent and Trademark Office

Atty. Docke P24867 Applicant

Application No

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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	1	Re	eyes	, J.C	3., ε	et al.	, Bic	ı. R	es., 27, pp. 4	19-56, 19	94.					
	2	Ts	uda	, M.	, et	al., I	Neu	rosc	i., 17, pp. 66	78-6684,	1997.					
	3	K	oike,	T.,	et a	l., J.	Am	. Cł	em. Soc., 1	18, pp. 12	696-12703	3, 1996				
	4	Sa	aibo	u Ko	uga	ıku (Cell	Tec	chnology), 17	7, pp. 584	-595, 1998	3				
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Department of Commerce Patent and Trademark Office

Atty. Docket

Filing Date

January 30, 2004

Application No. 10/767.334

Applicant Kensuke KOMATSU et al.

Group 1743

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

FXAMINER FILING DATE INITIAL DOCUMENT NUMBER DATE CLASS SURCI ASS NAME IF APPROPRIATE FOREIGN PATENT DOCUMENTS TRANSLATION DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YES NO 2000 3 9 2 05/09/00 **JAPAN** 2 OΩ 1 01/06/00 WIPO 89 0 2 9 10/05/89 W.I.P.O 95 12/27/96 W.I.P.O 4 2 1 6 ۵A 1 5 8 3 n 04/16/98 WIPO ٥٥ 1 5 8 9 6 04/01/99 WIPO 9 01/06/00 00 Ω 0 8 1 WIPO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 5 Tanpakushitsu, Kakusan, Kouso (Protein, Nucleic Acid and Enzyme), extra number, 42, pp. 171-176. 6 Tetsuji Kametani, Nankodo Co., Ltd., pp. 214-215, 1997. Handbook of Fluorescent Probes and Research Chemicals, 6th Edition by Richard P. Haugland, 7 pp. 503 and 531-540. Protective Groups in Organic Synthesis, T. W. Greene, John Wiley & Sons, Inc. pp. v-xxi and 369-5 9 English Language Abstract of JP 2000-239272. 10 Angew. Chem., Int. Ed. (1999), 38(21), pp. 3209-3212 Anal. Chem. (1998), 70(13), pp. 2446-2453. 11 12 Bioorganic & Medicinal Chemistry, Vol.4, No.6, pp. 901-916, (1996) 13 Bioorg, Khim, (1995), 21(10), pp. 795-801. 14 Sci. China, Ser. B; Chem. (1998), 41(5), pp. 549-555.

U.S. PATENT DOCUMENTS

J. Am. Chem. Soc. (1996), 118, pp. 6514-6515,

122. No. 23, 14 June 2000, pp. 5644-5645.

106-115, XP 004207135.

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Walkup G. K. et al., "A New Cell-Permeable Fluorescent Probe for Zn2+", J. Am. Chem. Soc., Vol.

BAMBOT, S.B. et al., "Potential Applications of Lifetime-Based, Phase-Modulation Fluorimetry in

Bioprocess and Clinical Monitoring", Trends in Biotechnology, Vol. 13, No. 3, March 1995, pages

Hirano T. et al., "Highly Zinc-Selective Fluorescent Sensor Molecules Suitable for Biological Applications", J. Am. Chem. Soc., Vol. 122, No. 49, 13 December 2000, pp. 12399-12400. SIPIOR. J. et al.. "Lifetime-Based Optical Sensing of pH Using Resonance Energy Transfer in Sol-

Gel Films", Sensors and Actuators B: Vol. 22, No. 3, December 1994, pages 181-188.

31

EXAMINER

pp. 97-110 (1955).

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ORM PTO	D-1449								rtment of Co nd Tradema		Atty. Doci P24867	ket No.		Applica 10/767,	tion No. 334	
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	23	E	nglis	h La	angu	age	Abs	strac	t of JP 10-8	8124.						
	24	Er	nglis	h La	angı	ıage	Abs	strac	t of JP 2000	-111480						
	26	R	oger	s, N	I. V.	, Dr	ug D	isco	very Today,	Vol. 2, p	p. 156-160,	1997.				
	26	S	elvin	, P.	R.,	et al	., J.	Am	Chem. Soc	., Vol. 11	7, pp. 8132	-8138, 199	5.			
	27	SI	tryer	, L.,	Anr	1. Re	ev. E	Biocl	nem., Vol. 47	7, pp. 819	-846, 1978					
	26	Н	emn	nilä,	I., e	t al.	, Dru	ıg D	iscovery To	day, Vol.	2, pp. 373-3	381, 1997.				
	23 New Apoptosis Experime							ental Protocol, 2nd ed., Yodosha, pp. 201-204, 1999.								
	30	S	elvin	, P.	R.,	et a	l., J.	Am	. Chem. Soc	., Vol. 11	6, pp. 6029	-6030, 199	4.			

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

J. BURCH, "The Inhibition of Horse-Liver Esterase by Rhodamine B," Biochemical Journal, Vol. 59,

DATE CONSIDERED

06/17/2008

43

44

44

250, pp. 332-335 (1997).

P24867.P2	26doc	•							Sheet 4 of	
ORM PTO-	1449		rtment of Co		Atty. Docket P24867	No.		Application No. 10/767,334		
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		OTHER DOCUMENT	S (Including Au	thor, Title	, Date, Pertinent	Pages, Etc	.)			
	32	D.D. THOMAS et al., "Flo National Academy of Sci (1978).								
	33	S.M. YEH et al., "Charact Transfer," Biochemistry, 1				g Sites by	/ Diffi	usion-En	hanced Energy	
	34	R.A. EDWARDS et al., Dehydrogenases and Ki Biochemistry, Vol. 18, No.	aluation	of Dyes as	on Blue Probes	and of t	Congo he Dinu	Red Bound to cleotide Fold,*		
	35	C.F. MEARES et al., "Diff Polymerase Inhibitor Bind						ility of R	ibonucleic Acid	
	36	T.G. WENSEL et al., "Ele Transfer," Biochemistry, 2				Probed by	/ Diff	usion-En	hanced Energy	
	37	M.M. FEDERICI et al., "Ir Dye as a Conformational pp. 647-660 (1985);	teraction of Probe. 1. St	Cibacror udies Us	Blue F ₃ GA ving Unfraction	vith Gluta ated Dye	mine Sam	Syntheta ples," Bi	ase: Use of the ochemistry, 24,	
	38	T.G. WENSEL et al., "I Cobalt(III) Bleomycins: Complexes of Ethidium ar	Comparisons	of Ac	cessibility an	d Electro	ostati	c Poten	tial with DNA	
	39	B.S. ISAACS et al., "A Do Phospholipid Surface. A F 5969 (1986).	main of Men luorescence	nbrane-B Energy	ound Coagula Transfer Meas	tion Facto surement,	or Va " Bio	Is Locat chemistr	ed Far from the y, 25, pp. 4958-	
	40	T.G. WENSEL et al., "S Energy Transfer," Journal	Study of Bio of the Less-	logical N Common	facromolecule Metals, 149,	s by Diff pp. 143-1	fusior 60 (1	n-Enhand 989).	ced Lanthanide	
	40	P.R. SELVIN et al., "Li Chemical Society, 116, pp	minescence 6. 6029-6030	Reson: (1994).	ance Energy	Transfer	," Jo	urnal of	the American	
	42	T. YAMAMOTO et al., "D Surface of Actin by Diffe Molecular Biology, 241, p	usion-enhand	ed Fluo	trostatic Poter rescence Res	ntial Arous sonance E	nd S Energ	pecific Log y Trans	ocations on the fer," Journal of	

pp. 81-90 (1997). /Taofig Solola/ 06/17/2008 DATE CONSIDERED FXAMINER *EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

of the United States of America, 94, pp. 5685-5690 (1997).

S.C.J. MESKERS et al., "Analysis of Delayed Luminescence from Some Quenchers of Tb(DPA)33-

Emission: Proof for an Energy Transfer Quenching Mechanism," Journal of Alloys and Compounds,

D.D. ROOT, "In situ Molecular Association of Dystrophin with Actin Revealed by Sensitized Emission Immuno-Resonance Energy Transfer," Proceedings of the National Academy of Sciences

C. MUCIGNAT-CARETTA et al., "Building of Two Fluorescent cAMP Analogues to Type I and II Regulatory Subunits of cAMP-Dependent Protein Kinases," Biochimica et Biophysica Acta, 1357,

EXAMINER

FILING DATE

.S. Department of Commerce	
Patent and Trademark Office	P24867

U.S. PATENT DOCUMENTS

Atty. Docket No. Application No. 10/767,334

January 30, 2004

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)

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	47	L.L. PEARCE et al., "Role of Metallothionein in Nitric Oxide Signaling as Revealed by a Green Fluorescent Fusion Protein." Proceedings of the National Academy of Sciences of the United States												

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

of America, 97, pp. 477-482 (2000).

English Language Abstract of JP 60-54381.

48

49

EXAMINER

/Taofig Solola/

M. KORESAWA et al., "Development of a Time-Resolved Fluorometric Detection System Using Diffusion-Enhanced Energy Transfer," Analytical Chemistry, 72, pp. 4904-4907 (2000).

DATE CONSIDERED

06/17/2008

50

50

Department of Commerce
Patent and Trademark Office

Free Radicals in Clinical Medicine, Vol. 7, pp. 35-41 (1993).

Supplement, Chapter 20, pp. 805-817 (2002).

Atty. Docket

Application No. 10/767,334

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)

Applicant Kensuke KOMATSU et al.

Filing Date Group January 30, 2004 1743

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

T. NAGANO et al., "Specific Detection Method and Useful Generating System of Singlet Oxygen."

51	I. SAITO et al., "Methyl-Substituted Poly(vinylnaphthalene) as a Reversible Singlet Oxygen Carrier," J. Am. Chem. Soc., Vol. 107, pp. 6329-6334, 1985.
52	T. W. Greene et al., "Protective Groups in Organic Synthesis," John Wiley & Sons, Inc., pp. v-xxi

53	J. KABATC et al., "Free Radical Polymerization Initiated via Photoinduced Intermolecular Electron Transfer Process: Kinetic Study 3 ¹ ," Polymer 40(3), pp. 735-745 (1999).
	K. SETSUKINAI et al., "Fluorescence Switching by O-dearylation of 7-aryloxycoumarins. Development of Novel Flourescence Probes to Detect Reactive Oxygen," J. Chem. Soc., Perkin Trans. 2, 12, pp. 2453-2457, (2000).

	pp. 308-308 (July 2000).
56	ANDEREGG et al., Helvetica Chimica Acta, Vo 50, pp. 2330-2333 (1967).
57	T. HIRANO et al., "Highly Zinc-Selective Fluorescent Sensor Molecules Suitable for Biological

J.W. FIRTH et al., "Some Phenoxy-2H-benzo[b]pyrans," J. Chem. Research (S), Vol. 2000, No. 7.

	1. FirkANO et al., Fighty Zinc-Selective Fluorescent Sensor Molecules Suitable for Biological Applications," Journal of the American Chemical Society, Vol. 122, No. 49, pp. 12399-12400 (2000).
53	R.P. HAUGLAND, "Handbook of Fluorescent probes and Research Products." 9th Edition

50	G.K. WALKUP et al., "A New Cell-Permeable Fluorescent Probe for Zn ²⁺ ," Journal of the American Chemical Society, Vol. 122, No. 23, pp. 5644-5645 (2000).
61	J. KAWAKAMI et al., "Ab initio Molecular Orbital Study of Emission Mechanism of 2,6-Bis (quinolinecarboxy) methylpyridine as Fluorescent Chemosensors for Zinc and Cadmium Ions,"

	Journal of Computer Chemistry, Japan, Vol. 2, No. 2, pp. 57-62 (2003).
61	C.J. FREDERICKSON et al., "A quinoline fluorescence method for visualizing and assaying the histochemically reactive zinc (bouton zinc) in the brain," Journal of Neuroscience Methods, Vol. 20, pp 91-103 (1987).
62	D. ZALEWSKI et al., "Correlation of apoptosis with change in intracellular labile Zn(II) using Zinquin ([2-methyl-8-p-tolluenesulphonamido-6-quinolyloxy)acetic acid], a new specific fluorescent probe for Zn(II)," Biochemical Journal, Vol. 296, Part 2, pp. 403-408 (1993).
63	English Language Abstract of JP 10-226688.

L. LINDOVIST et al., "Radiationless Transitions in Xanthene Dyes", J. Chem. Phys., Vol. 44, pp. 1711-1712 (1966).

EXAMINER // Taofiq Solola/ DATE CONSIDERED 06/17/2008

*EXAMINER. Initial if citation considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	65	Englis	h la	ngua	age.	Abs	trac	t of JP 2000	-239272.						
	67	English Language Abstract of JP 08-2714430.													
Hydroxy Aromatic Compou								I., "The Condensation of Primary Alcohols with Resorcinol and Other ands", J. Am. Chem. Soc., vol. 47, pp. 1079-1091 (1925), XP002332482.							
	69	R. KURDUKER et al., "Search for Physiologically Active Compounds", Proc. Indian. Act Sect. A., Vol. 57, pp. 280-287 (1963).										ian. Acad	I. Sci.		
Fluorescein Chromophores",							nore	escent Indicators for Cytosolic Calcium Based on Rhodamine and s", J. Biol. Chem., Vol. 264, No. 14, pp. 8171-8178 (1989),							
	71	Hydro	xybe	enzo	phe	non	es,"	(anthones. J. Chem. S	ci. (Londo	A New n), pp. 398	Synthesis 2-3985 (198	of 1	Hydroxyx	anthones	and
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